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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/715,556	11/17/2000	Gwilym Francis Luff	MLNR-06501	6531

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EXAMINER	
PERILLA, JASON M	

ART UNIT	PAPER NUMBER
2634	7

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/715,556	LUFF, GWILYM FRANCIS	
	Examiner	Art Unit	
	Jason M Perilla	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,15 and 18* is/are rejected.

7)☒ Claim(s) *1-14,16,17 and 19-31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,3,4,5,6*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. Claims 1-31 are pending in the instant application.

Priority

2. Priority claim to provisional application Serial No. 60/167,430 filed November 23, 1999 is acknowledged.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner. However, references "AS" and "AT" of IDS paper No. 4 are not in compliance and are not considered because copies of the cited documents have not been received.

4. The disclosure is objected to because of the following informalities:

Page 4, line 19; "level set signal 200" should be replaced by --level set circuit 200--.

Appropriate correction is required.

Claim Objections

5. Claim 1 recites the limitation "the control signal" in line 10. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 3 recites the limitation "the active output" in line 1. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 5 recites the limitation "the control signal" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fobbester (5663989) in view of Morris et al (5960046).

Regarding claim 1, Fobbester discloses by figure 4 a wireless receiver (abstract) having a circuit for receiving an input signal from a transmitter including a preamble portion (col. 1, line 56), a unique word portion and/or a data portion comprising (col. 1, lines 41-42), a preamble detector (fig. 4, ref. 11; col. 1, lines 48-62) configured to receive the input signal and to provide a preamble signal (fig. 4, ref. 12) where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion (col. 1, lines 48-62; col. 2, lines 38-41), a DC level set circuit configured to receive the preamble signal (fig. 4, refs. 8-10; col. 2, lines 22-42), the input signal including the preamble portion, the unique word portion and the data portion and to provide a level set signal (fig. 4, ref. 8), and a data slicer or comparator circuit coupled with the DC level set circuit to receive the level set signal and to provide the output signal (fig. 4, ref. 14 – "DATA OUT"). Fobbester does not disclose a control signal being applied to the DC level set circuit to place the DC level set circuit into operation. However, Morris et al teaches a wireless receiver system (fig. 3; abstract) using a micro-controller (fig. 3, ref. 128) to control the

operation of the circuit. One skilled in the art is accustomed to activating or controlling circuitry by the use of micro-controllers and their associated software. Therefore, it would have been obvious to one of ordinary skill in the art at the time which the invention was made to utilize a control signal to activate the DC level set circuitry as taught by Morris et al in the receiver system of Fobbester because it could be used to selectively enable the system only when desired by the system designer as is understood in the art.

Regarding claim 15, Fobbester discloses by figure 4 a method of receiving (abstract) an input signal and providing an output signal, the input signal including a preamble portion (col. 1, line 56), a unique word portion and/or a data portion (col. 1, lines 41-42), the method comprising the steps of, receiving the input signal with a preamble detector (fig. 4, ref. 11; col. 1, lines 48-62), providing a preamble signal (fig. 4, ref. 12) where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion (col. 1, lines 48-62; col. 2, lines 38-41), receiving the preamble signal from the preamble detector, the input signal and the control signal with a DC level set circuit (fig. 4, refs. 8-10; col. 2, lines 22-42), providing a level set signal with the DC level set circuit (fig. 4, ref. 8), receiving the level set signal from the DC level set circuit with a data slicer circuit or comparator (fig. 4, ref. 14), and providing the output signal with the data slicer circuit (fig. 4, ref. "DATA OUT"). Fobbester does not disclose a control signal being applied to the DC level set circuit to place the DC level set circuit into operation. However, Morris et al teaches a wireless receiver system (fig. 3; abstract) using a micro-controller (fig. 3,

ref. 128) to control the operation of the circuit. One skilled in the art is accustomed to activating or controlling circuitry by the use of micro-controllers and their associated software. Therefore, it would have been obvious to one of ordinary skill in the art at the time which the invention was made to utilize a control signal to activate the DC level set circuitry as taught by Morris et al in the receiver system of Fobbester because it could be used to selectively enable the system only when desired by the system designer as is understood in the art.

Regarding claim 18, Fobbester discloses by figure 4 a circuit for receiving an input signal and providing an output signal (abstract), the input signal including a preamble portion (col. 1, line 56), a unique word portion and/or a data portion (col. 1, lines 41-42), the circuit comprising, means for receiving the input signal with a preamble detector (fig. 4, ref. 11; col. 1, lines 48-62), means for providing a preamble signal where the preamble signal is active during the preamble portion of the input signal and inactive during all portions of the input signal other than the preamble portion (col. 1, lines 48-62; col. 2, lines 38-41), means for receiving the preamble signal from the preamble detector, the input signal and the control signal with a DC level set circuit (fig. 4, refs. 8-10; col. 2, lines 22-42), means for providing a level set signal with the DC level set circuit (fig. 4, ref. 8), means for receiving the level set signal from the DC level set circuit with a data slicer circuit or comparator (fig. 4, ref. 14) and providing the output signal with the data slicer circuit (fig. 4, ref. "DATA OUT"). Fobbester does not disclose a control signal being applied to the DC level set circuit to place the DC level set circuit into operation. However, Morris et al teaches a wireless receiver system (fig. 3;

abstract) using a micro-controller (fig. 3, ref. 128) to control the operation of the circuit. One skilled in the art is accustomed to activating or controlling circuitry by the use of micro-controllers and their associated software. Therefore, it would have been obvious to one of ordinary skill in the art at the time which the invention was made to utilize a control signal to activate the DC level set circuitry as taught by Morris et al in the receiver system of Fobbester because it could be used to selectively enable the system only when desired by the system designer as is understood in the art.

Allowable Subject Matter

10. Claims 2-14, 16-17, and 19-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art of record not relied upon above is cited to further show the state of the art with respect to DC level shifting circuits for wireless receivers.

U.S. Pat. No. 5222078 to Cason et al; Removal of DC offset in a receiver.

U.S. Pat. No. 6370205 to Lindoff et al; Removal of DC offset in a receiver.

U.S. Pat. No. 4029904 to Papeschi; DC level correction.

U.S. Pat. No. 4873702 to Chiu; DC restoration in a receiver.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (703) 305-0374. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Jason M Perilla
January 20, 2004

jmp

STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600